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**General Certificate of Education (A-level)
June 2013**

Psychology B

PSYB1

(Specification 2185)

Unit 1: Introducing Psychology

Final

Mark Scheme

Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all examiners participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the students' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for standardisation each examiner analyses a number of students' scripts: alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, examiners encounter unusual answers which have not been raised they are required to refer these to the Principal Examiner.

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Section A Key Approaches and Biopsychology

Question 1ai

[AO1 = 1]

| TRUE | FALSE |
|------|-------|
| | ✓ |

Question 1aai

[AO1 = 1]

| TRUE | FALSE |
|------|-------|
| | ✓ |

Question 1b

[AO1 = 2]

AO1 Up to 2 marks for an outline of synaptic transmission.

One mark for reference to the release of neurotransmitter into the synapse.
One mark for reference to neurotransmitter binding with receptors on the dendrite or next neuron to binding another impulse.

Credit a diagram that illustrates the process above.

Question 1c

[AO2 = 3]

AO2 Up to 3 marks for application of classical conditioning to the scenario.

Credit reference to the following points:

- one mark for reference to balloon as a neutral stimulus when 'unburst'
- one mark for the reflex: normally a loud noise/bang causes fear
- one mark for the association between the balloon and bang/bursting
- one mark for the 'new learning' that balloons alone now elicit a fear response.

Example of a correct diagram:

| | | |
|--------------------|---|-------------|
| Neutral stimulus | = | no response |
| Balloon | | |
| UCS | = | UCR |
| Loud noise | | Fear |
| CS + UCS | = | UCR |
| Balloon Loud noise | | Fear |
| CS | = | CR |
| Balloon | | Fear |

Allow a maximum of 2 marks for a correct diagram with no explanation.

Question 1d

[AO3 = 3]

AO3 Up to 3 marks for a description of **one** way used by behaviourists to study operant conditioning.

1 mark for each of the following points:

- how the researchers used a controlled environment/context/variables – such as some detail of the Skinner box (do not credit naming Skinner’s rats and/or Skinner’s box)
- pairing of specified stimulus and response/consequence eg rat presses lever-receives food pellet
- reference to repetition– giving a food pellet each time.

Credit other relevant points such as schedules of reinforcement and procedure leading to extinction.

Accept answers based on both positive and negative reinforcement (or avoidance) and answers based on Skinner’s work, shaping of animals such as guide dogs, token economies with humans.

Question 1e

[AO1 = 5, AO2 = 5]

AO1 Up to 5 marks for accurate description of features of psychodynamic approach: the role of the unconscious; psychosexual stages; the structure of personality; defence mechanisms; the role of conflict; the procedures used in psychoanalysis. Credit description of features provided by neo Freudians such as Erikson. Credit description of evidence up to 1 mark.

AO2 Up to 5 marks for discussion of strengths and limitations of the psychodynamic approach.
Likely strengths: focus on emotional development that occurs in early childhood and affects adult behaviours and personality; recognition of the lack of rationality in much behaviour and how stated intentions do not always match actual actions; development of a therapy for the treatment of anxiety disorders laying the foundation for psychotherapy in modern psychiatry.

Likely limitations: not testable as concepts such as the unconscious are not easy to operationalise; not falsifiable as the theory is one in which the explanation uses *post hoc* reasoning, stating that adult disorder is a result of conflict in an early psychosexual stage but the theory often cannot predict how a particular conflict in childhood will affect adult behaviour; key concepts are not directly observable and have to be inferred from indirect procedures such as dream analysis; problems of generalisability due to lack of evidence in particular and reliance on individual case studies; general lack of scientific rigour because of interpretation of information and retrospective nature of psychoanalysis, limited evidence using the scientific method and reliance of case studies; general pessimism of the approach in which the individual always has to overcome repressed memories and overuse of defence mechanisms; emphasis on sexual instincts seems out of date in modern society, especially the imbalance in explanation for male and female development.

Credit comparison with other approaches only if the comparison makes clear the way in which the value of the psychodynamic approach is evident or how the psychodynamic approach is weakened by such comparison.

Credit use of evidence.

Max 6 marks if only strength(s) or limitation(s) present

Mark Bands

9 – 10 marks Very good answers

There is accurate, well organised and detailed description of the features of the psychodynamic approach, showing sound knowledge. There is clear, coherent and detailed discussion of at least one each of the strengths and limitations of the psychodynamic approach with balanced evaluation. Most discursive points are well developed. The answer is well focused and contains little or no misunderstanding.

The answer is well structured, with effective use of paragraphs, sentences and psychological terminology. There are few errors of spelling and punctuation.

6 – 8 marks Good answers

There is reasonably accurate description of the psychodynamic approach, showing knowledge of some of the features of the approach. There is reasonable discussion of a strength and for more than 6 marks limitation of the approach. The answer is mostly focused on the question, shows some organisation, although there may be some misunderstanding.

The answer has some structure, with appropriate use of paragraphs, sentences and psychological terminology. There are some errors of spelling and punctuation.

3 – 5 marks Average to weak answer

There is knowledge of the psychodynamic approach and/or basic/limited discussion/knowledge of strength(s)/limitation(s) of the approach. The answer may lack balance between description and evaluation/discussion. The answer may lack focus. There may be substantial inaccuracy and/or irrelevance at the bottom of the band.

Some basic ideas are expressed adequately, although the answer may lack structure. Psychological terminology may be missing or used inappropriately. There may be some intrusive errors of grammar, spelling or punctuation.

1 – 2 marks Poor answer

There is extremely limited knowledge of the psychodynamic approach and/or discussion/evaluation of the approach. There must be some relevant information.

Basic ideas are poorly expressed. There is little evidence of structure. There may be many errors in grammar, spelling and punctuation.

0 marks No relevant content

Total AO1 marks for Question 1: 9

Total AO2 marks for Question 1: 8

Total AO3 marks for Question 1: 3

Total marks for Question 1: 20

Section B Gender Development

Question 2a

[AO3 = 1, AO2 = 3]

AO3 One mark for a description of the results which might be embedded in the application of knowledge of gender schema theory below.

The recall of the activities of *watching TV* and *mowing the lawn* was almost perfect/extremely high, **but** recall for *ironing* was only 23/50 or just less than half.

AO2 Up to 3 marks for use of knowledge of gender schema theory to explain the results of the study.

Likely points:

- explaining what a gender schema is – mental representation about gender-related behaviours **OR** one mark for reference to formation of stereotypes – expectations about what certain genders do
- relating results to the above – recall of information that fits the schema and stereotype
- reference to not fully processing or ‘forgetting’ the ironing behaviour which does not fit the schema or stereotype.

Question 2b

[AO3 = 1]

AO3 One mark for a clear definition of opportunity sampling.

Likely answer: a sampling method in which people who are available to the researcher are used in the study.

Accept alternative wording, such as convenient. Do not accept just ‘willing participants.’

Question 2c

[AO3 = 3]

AO3 Up to 3 marks for an explanation of why unstructured interviews would be appropriate in this study.

Full marks can be credited for one fully elaborated issue.

Credit the following likely points:

- an unstructured interview would allow the interviewer to respond to the answer given by a child with a specific follow-on question
- the interviewer may gain new insight/lines of enquiry not explored so far
- it would enable the researcher to explore further the reason(s) given by the child for his answer – depth and detail

- it may overcome interpretation/communication issues by allowing the child to be clear about what they are trying to say.

Credit other valid points.

Credit reference to increased validity if there is explanation of how this is achieved.
Maximum of 2 marks if answer not specific to this study.

Question 2d

[AO1 = 2]

- AO1** Up to 2 marks for an outline of a difference between understanding of gender in the gender stability stage and that in the constancy stage.

In the stability stage, although the child understands his/her own gender remains fixed in spite of outward changes such as hair length/clothing, he/she believes that the gender of others might change if outward appearance changes – in the constancy stage they know that everyone's gender is fixed in all situations.

Question 2e

[AO1 = 5, AO2 = 5]

- AO1** Up to 5 marks for accurate description of the explanations of gender development provided by biological theory and social learning theory (SLT).

Max of four marks for any one of these explanations.

Biological: Students may focus on some of the following: how genetic factors cause gender-appropriate behaviour – gender and sex are interrelated; hormones, eg the influence of androgens and testosterone Dabbs et al (1995), Tricker et al (1996) or oestrogen and progesterone Van Goozen et al (1995), Hampson and Kimura (1988); atypical sex chromosomes, eg XXY – Klinefelter's syndrome; XO – Turner's syndrome – in terms of the effect these syndromes have on gender development. Students may choose to focus on non-human research, eg Gorski et al (1980) found male rats' sexually dimorphic nucleus (SDN) to be larger in anatomical structure compared to female rats' SDN which might account for differences in behaviour, or on case studies such as Imperato-McGinley et al (1978) or Money and Erhardt (1972), Diamond (1997).

SLT: the idea that gender behaviour is learned via observation in social contexts; the influence on gender development of cognitive processes – including some of the following, attention, retention and motivation, reproduction; modelling, (Perry and Bussey (1979) and identification; imitation, Masters et al (1979) and reinforcement, Fagot (1978), Dweck et al (1978), Smith and Lloyd (1978)/Baby X studies.

Credit description of evidence up to 2 marks.

- AO2** Up to 5 marks for discussion of the two explanations.
Students are required to refer to evidence in their response. This may be in support/conflict for either approach. For example, Money (1975) suggested that nurture was responsible for gender development thereby rejecting nature/biology. However, in a follow-up study Diamond (1997), Brenda had never felt happy as a girl and resumed her masculine identity (nature), thereby supporting biological explanations. Students may raise methodological issues associated with the

extrapolation of findings from animal research to explain human gender development. They may reflect on the value of unusual case study evidence in a universal explanation of gender development; the issue of cause and effect in testosterone research and the possible impact of environmental factors on biological state. Similarly for SLT weaknesses in the evidence as well as strengths might be considered – the artificiality of laboratory-based research; weaknesses in the explanation of age-related changes or differences in gender behaviours, despite the same environment, and discussion of how these issues might be explained as due to cognitive factors mediating the responses/chosen behaviours.

Credit comparisons with other approaches only if the comparison makes clear the way in which the value of the biological or SLT approach is evident or how either approach is weakened by such comparison.

Credit reference to debates when it is made clear how these impact on strengths or limitations of each explanation.

Credit use of evidence.

Max 6 marks if no reference to evidence

Max 6 marks if only one explanation

Mark Bands

9 – 10 marks Very good answers

There is accurate, well organised and detailed description of the features of the biological and SLT explanations of gender development, showing sound knowledge. There is clear, coherent and detailed discussion of these approaches, including strengths and/or limitations. There is balance in the description and/or evaluation(s) made. Most discursive points are well developed. The answer is well focused on gender and contains little or no misunderstanding. Reference to relevant evidence is made.

The answer is well structured, with effective use of paragraphs, sentences and psychological terminology. There are few errors of spelling and punctuation.

6 – 8 marks Good answers

There is accurate description of the biological and SLT explanations of gender development, showing knowledge of some of the features. This description may be unbalanced. There is discussion of the explanation(s). Some discursive points are well developed although some points may be stated rather than discussed. The answer is mostly focused on gender, shows some organisation although there may be some misunderstanding. For more than 6 marks there is reference to relevant evidence. An otherwise very good answer dealing with one explanation can gain up to 6 marks.

The answer has some structure, with appropriate use of paragraphs, sentences and psychological terminology. There are some errors of spelling and punctuation.

3 – 5 marks Average to weak answer

There is some knowledge of the biological and/or SLT explanation(s) of gender development and/or basic/limited discussion of this explanation(s). The answer may lack focus on gender. There may be substantial inaccuracy and/or irrelevance at the bottom of the band.

Some basic ideas are expressed adequately, although the answer may lack structure. Psychological terminology may be missing or used inappropriately. There may be some intrusive errors of grammar, spelling or punctuation.

1 – 2 marks Poor answer

There is extremely limited knowledge of the biological/SLT explanations and/or discussion of these explanations of gender development. There must be some relevant information.

Basic ideas are poorly expressed. There is little evidence of structure. There may be many errors in grammar, spelling and punctuation.

0 marks No relevant content

Total AO1 marks for Question 2: 7

Total AO2 marks for Question 2: 8

Total AO3 marks for Question 2: 5

Total marks for Question 2: 20

Section C Research Methods

Question 3a

[AO3 = 1]

AO3 A median score is calculated by putting all the scores in order from lowest to highest (or vice versa) and finding the middle score in the set.

Credit explanations that refer to sets with even numbers of values, ie by finding the numerical mid-point between the two middle scores.

Question 3b

[AO3 = 1]

AO3 One mark for identification of the dependent variable:

The estimate of how many marks would be scored on the maths test.

Accept alternative wording.

Question 3c

[AO3 = 2]

AO3 2 marks for a clear, testable statement containing both conditions of the IV and an operationalised DV.

There is a difference in the estimates men will give of their scores on a maths test and the estimates women will give of their scores on a maths test. (Accept a null version)

Men will give higher (or lower) estimates of their scores on a maths test than the estimates women will give of their scores on a maths test.

For 1 mark – a statement with both conditions of the IV and a DV which may not be operational or testable.

No marks for expressions of aim/ questions/correlational hypotheses or statements with only one condition.

Question 3d

[AO3 = 2]

AO3 One mark for identification of the experimental design as independent groups/measures/samples. No credit if incorrect design is chosen.

One mark for an explanation of this design.

The participants in the male group are different people from those in the female group or reference to only participating in one condition.

Question 3e

[AO3 = 3]

AO3 Up to 3 marks for a clear explanation of the procedure for obtaining a random sample in this study:

- put all the names/numbers of the men (from the factory) in a hat/computer (1)
- draw out 15 names for the sample or get computer to randomly generate 15 numbers (1).
- repeat for all the women (of the factory) (1) or vice versa.

Accept other ways that would clearly generate a random sample.

Question 3f

[AO3 = 2]

AO3 Up to 2 marks for a suitable conclusion drawn from the data in **Table 2**.

One mark for the conclusion:

There is a difference in the expectations men and women have of their own numeracy skills.

Accept a directional statement such as:

Men think they are likely to achieve better scores on a maths test than women think they will achieve.

One mark for the justification:

The median estimate for men was much higher than that for the women.

Question 3g

[AO3 = 3]

AO3 Up to 3 marks for what comparison of the estimated and actual maths scores of the men and women indicates.

Men overestimated their numeracy skills / numerical ability / score they would get (or similar) (1 mark)

Women underestimated their numeracy skills / numerical ability / score they would get (or similar) (1 mark)

Overall conclusions:

- People / Men / Women are not very good at estimating our ability
- Expectations were wrong
- (Although estimates are different) ability was the same
- Men are over confident re ability
- Women under confident re ability

(1 mark for any of these)

Question 3h

[AO3 = 4]

AO3 Information must be written in verbatim form for more than 1 mark.

| | |
|------------------|---|
| Essential points | Purpose/aim of the study Ethical point |
|------------------|---|

| | |
|-----------------|--|
| Optional points | Background information/Elaboration of the aim and conditions Any questions? Thanking for participation Interest in the results? |
|-----------------|--|

4 marks **Verbatim** Both essential and at least one optional point are addressed clearly such that an understanding of the study is achieved. Information should be clear, relevant, sensible and logically structured.

3 marks **Verbatim** Both essential points are addressed such that there is reasonable understanding of the study. There may be deficiencies in clarity, some irrelevance, illogical sequencing or inappropriate content.

2 marks **Verbatim** Any 2 points are addressed. There may be omissions/irrelevances/muddle such that understanding of the study might be limited.

1 mark There must be at least one relevant point. Information may be unclear/inappropriate/irrelevant such that understanding of the study would be very limited or most points addressed but not in verbatim form.

0 marks No relevant information. Understanding of the study would not be possible.

Question 3i

[AO3 = 2]

AO3 One mark for a valid reason and a further mark for elaboration of the reason given.

Reason: to identify any possible flaws in (the design of) the study (1 mark).

Elaboration: to provide an opportunity to improve the study/ or so that the researcher does not waste time collecting data that will have to be discarded (1 mark).

Accept any other valid answer.

ASSESSMENT OBJECTIVES GRID

| Question | AO1 | AO2 | AO3 |
|---------------------|-----------|-----------|-----------|
| 1(ai) | 1 | | |
| 1(aii) | 1 | | |
| 1(b) | 2 | | |
| 1(c) | | 3 | |
| 1(d) | | | 3 |
| 1(e) | 5 | 5 | |
| Total | 9 | 8 | 3 |
| 2(a) | | 3 | 1 |
| 2(b) | | | 1 |
| 2(c) | | | 3 |
| 2(d) | 2 | | |
| 2(e) | 5 | 5 | |
| Total | 7 | 8 | 5 |
| 3(a) | | | 1 |
| 3(b) | | | 1 |
| 3(c) | | | 2 |
| 3(d) | | | 2 |
| 3(e) | | | 3 |
| 3(f) | | | 2 |
| 3(g) | | | 3 |
| 3(h) | | | 4 |
| 3(i) | | | 2 |
| Total | 0 | 0 | 20 |
| Total for AO | 16 | 16 | 28 |

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